



2018 BOONE COUNTY

SEXUALLY TRANSMITTED DISEASE SUMMARY

Columbia/Boone County Public Health & Human Services
Published June 2019

Technical Notes

- Rates in this report are calculated using the 2017 Boone County estimated population (MOPHIMS)
- The chlamydia, gonorrhea, and syphilis cases analyzed in this report are cases diagnosed in residents of Boone County between January 1 and December 31, 2018 (CDC weeks 1 through 52)
- Ten years of trend data are used in this report to remain consistent with the Missouri Department of Health and Senior Services trend data.
- Race is analyzed in two categories, white and black. Other and unknown races are reflected in the total counts and rates. They are not singled out for analysis because of low case counts and the need to maintain confidentiality.
- Syphilis is minimally addressed because of the low numbers of reports in Boone County relative to chlamydia and gonorrhea, and the need to maintain confidentiality.
- HIV and Hepatitis B and C are not addressed in this report. The Missouri Department of Health and Senior Services releases annual reports which address both hepatitis and HIV by region (<https://health.mo.gov/data/hivstdaids/data.php>).

The 2018 Sexually Transmitted Disease (STD) Summary for Boone County, Missouri, includes surveillance statistics for three reportable sexually transmitted diseases: chlamydia, gonorrhea, and syphilis.

In 2018, Boone County reported a total of 2,043 STD cases. Chlamydia was the most often reported STD with 1,529 cases (Figure 1). The number of gonorrhea cases increased to 474 cases in 2018 from 310 in 2017. Both Missouri and Boone County saw increases in all three STDs from 2017 (Figure 2).

Figure 1: Reported STDs by Count and Incidence Rate per 100,000 Population, Boone County and Missouri, 2018

Condition	Boone County Case Count	Boone County Rate per 100,000	Case Count Rank Among Missouri Counties	Missouri Case Count	Missouri Rate
Chlamydia	1,529	857.7	5 th	34,728	561.8
Gonorrhea	474	265.9	6 th	15,090	246.8
Syphilis (all stages)	40	22.4	7 th	1,914	31.3
Total	2,043	1,146.0	5th	51,732	846.2

Figure 2: Percent Change of STD Rates for Boone County and Missouri, 2017 to 2018

Condition	Boone County 2017 (rate per 100,000)	Boone County 2018 (rate per 100,000)	Boone County Percent Change 2017 to 2018	Missouri Percent Change 2017 to 2018
Chlamydia	752.0	857.7	14% ↑	6% ↑
Gonorrhea	175.5	265.9	52% ↑	15% ↑
Syphilis	9.1	22.4	138% ↑	43% ↑
Total	936.6	1,146.0	22% ↑	10% ↑

The overall rate of STDs in Boone County (chlamydia, gonorrhea, and syphilis combined) has risen by 68% between 2009 and 2018. Figure 3 shows the annual total STD rate in Boone County. Females and black residents of Boone County have higher rates of diagnosed STDs than males and white residents (Figures 4-6).

Figure 3: Boone County Total STD Rate per 100,000, 2009-2018

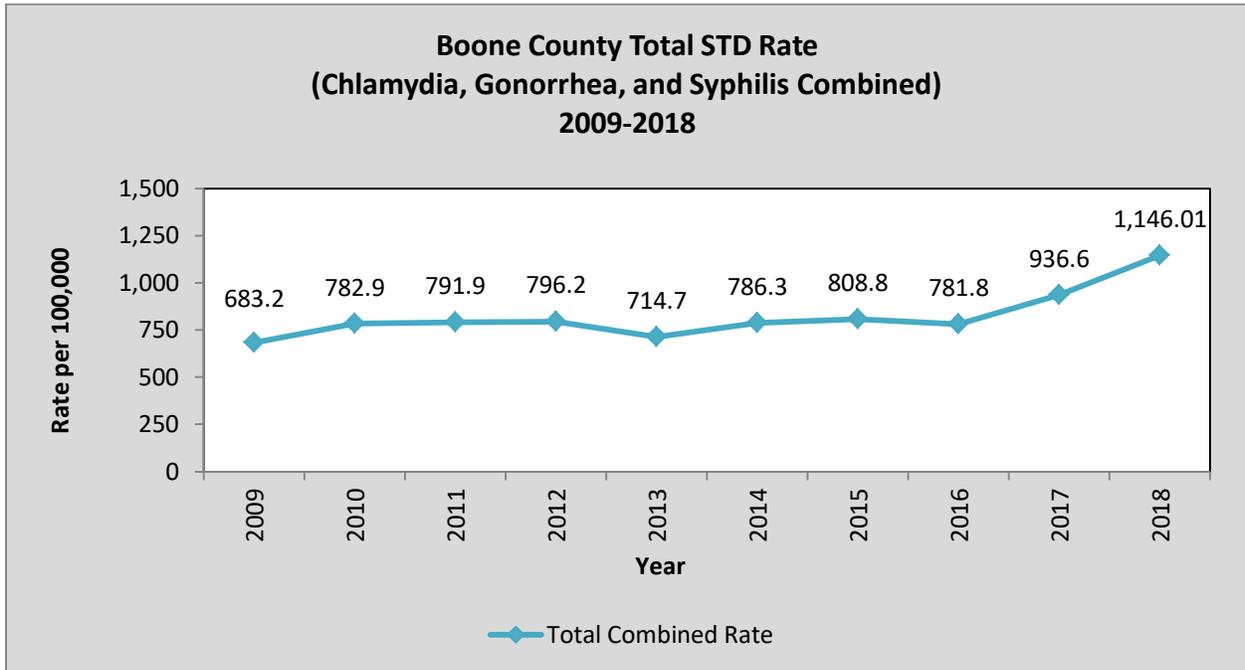


Figure 4: Rate of Diagnosed STDs by Sex per 100,000, 2018

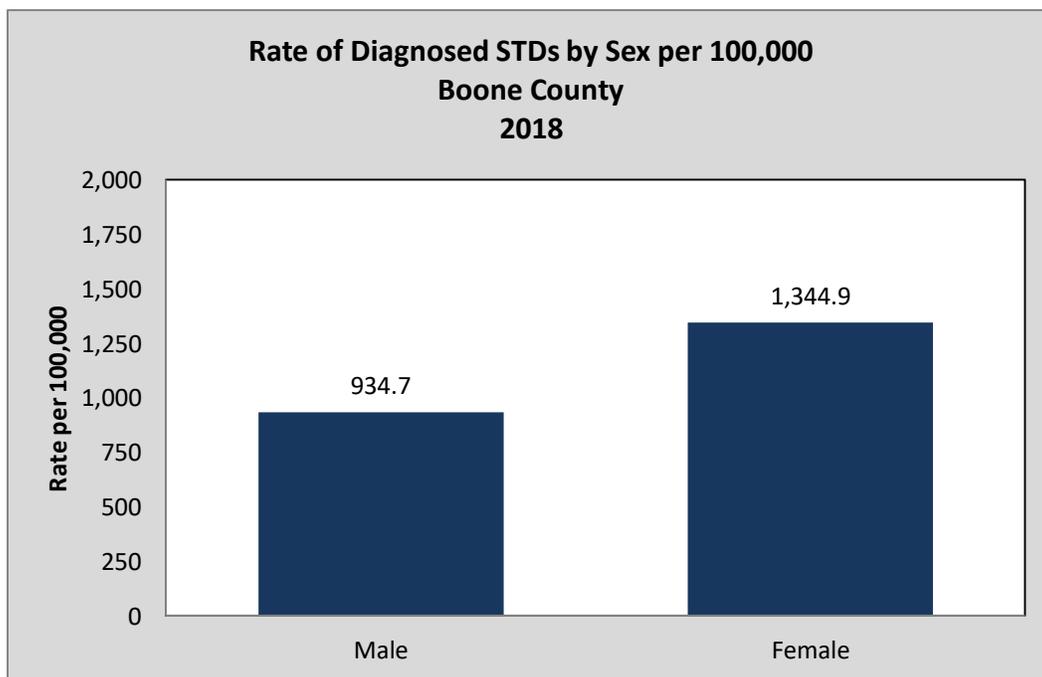


Figure 5: Rates of Diagnosed STDs by Sex per 100,000, 2018

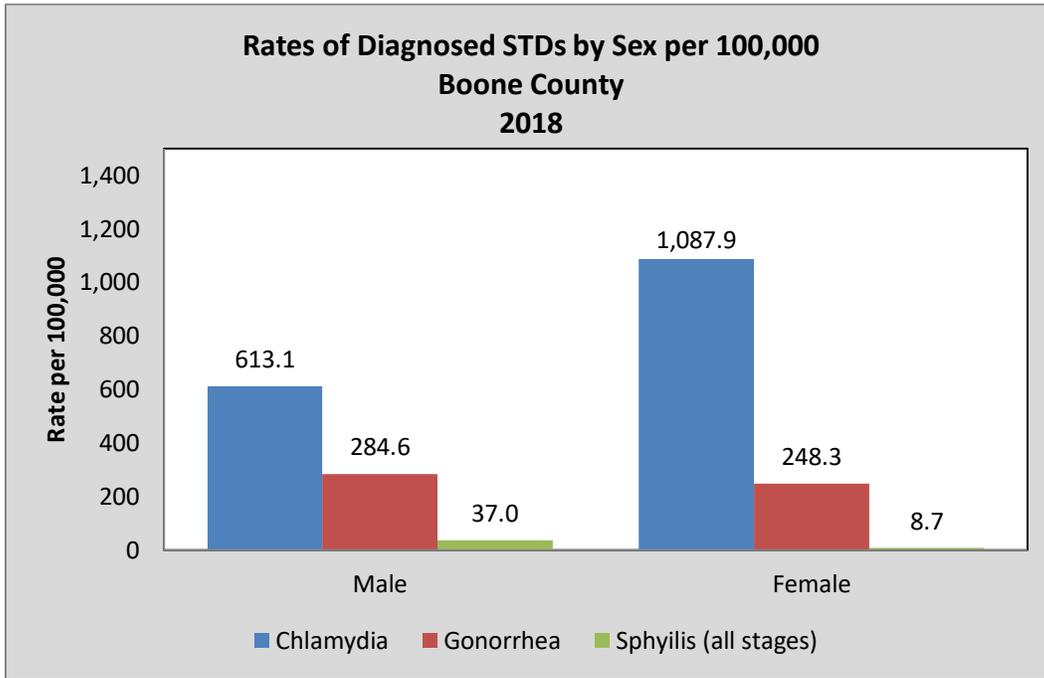


Figure 6: Rates of Diagnosed STDs by Race per 100,000, 2018

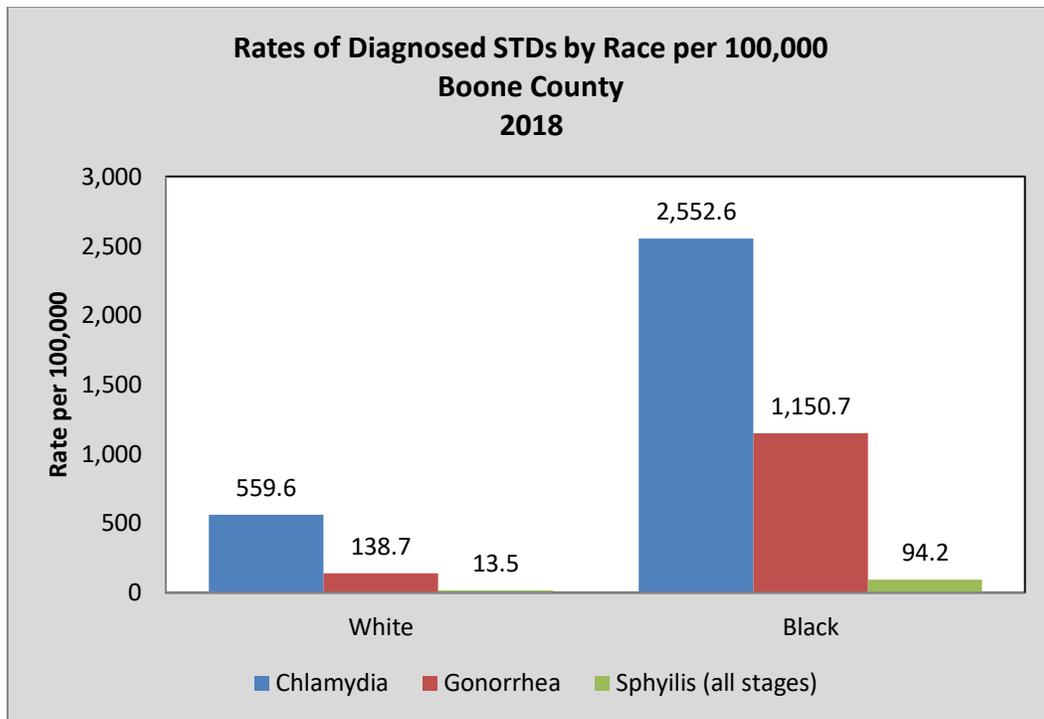
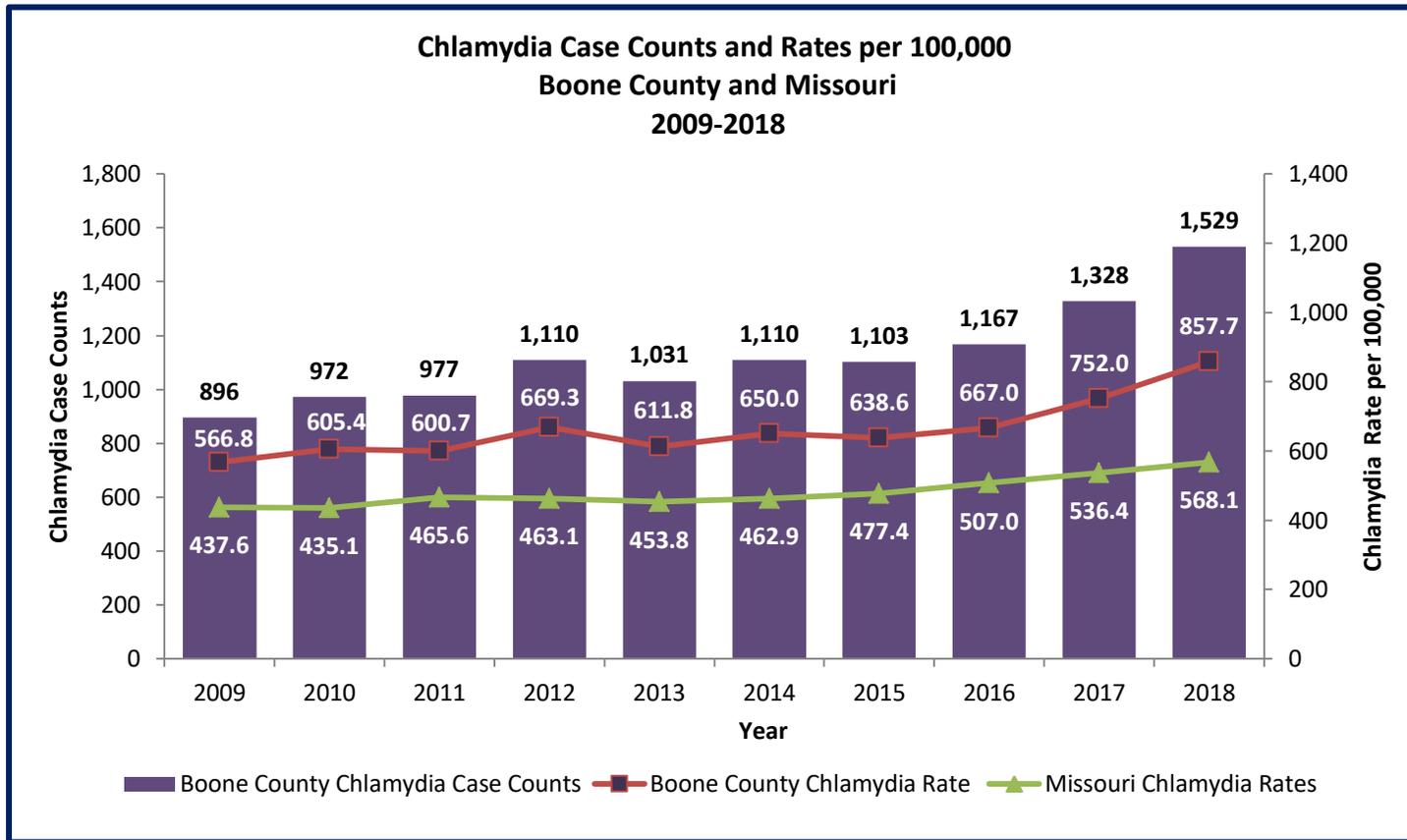


Figure 7: Chlamydia Case Counts and Rates per 100,000, Boone County and Missouri, 2009-2018



Chlamydia

Chlamydia is the most common notifiable STD in the United States. You can get chlamydia by having vaginal, anal, or oral sex with a person who has chlamydia. Nationally, rates of reported cases of chlamydia are highest in women ages 20-24 followed by women ages 15-19. Expanded chlamydia screening over the last two decades among these age groups may have contributed to higher rates. Untreated chlamydia can cause pelvic inflammatory disease (PID) in women which can cause damage to the reproductive system. Complications in men include inflammation near the testicles, pain, and swelling.

During 2018 in Boone County, 1,529 cases of chlamydia accounted for approximately 75% of all STDs reported. Boone County has the fifth-highest chlamydia case count among Missouri counties. Compared to Missouri, Boone County has a higher incidence rate of chlamydia. Figure 7 on Page 6 shows chlamydia case counts for Boone County, and compares rates per 100,000 people between Boone County and Missouri from 2009 to 2018.

In Boone County, the 20-24 year age group had the highest number of diagnosed chlamydia cases with 735 (48% of all chlamydia cases), followed by 18-19 year age group with 286 (Figure 8). The 18-19 year age group had the highest incidence rate of chlamydia with 3,314.4/100,000 population (Figure 9). Black residents of Boone County were diagnosed with chlamydia at a rate of five higher than white residents (Figure 10). Females had diagnosed chlamydia rates at nearly two times that of males (1,087.9 to 613.1) (Figures 11-12).

Figure 8: Chlamydia case counts by Age Group, 2018

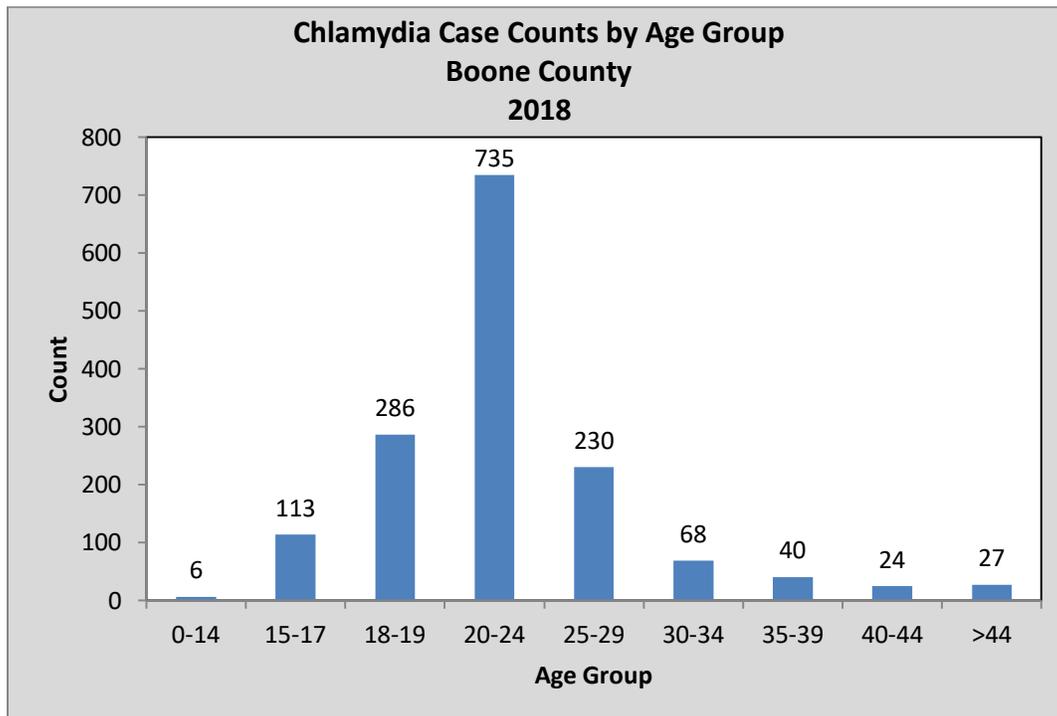


Figure 9: Rates of Reported Chlamydia by Age Group per 100,000, 2018

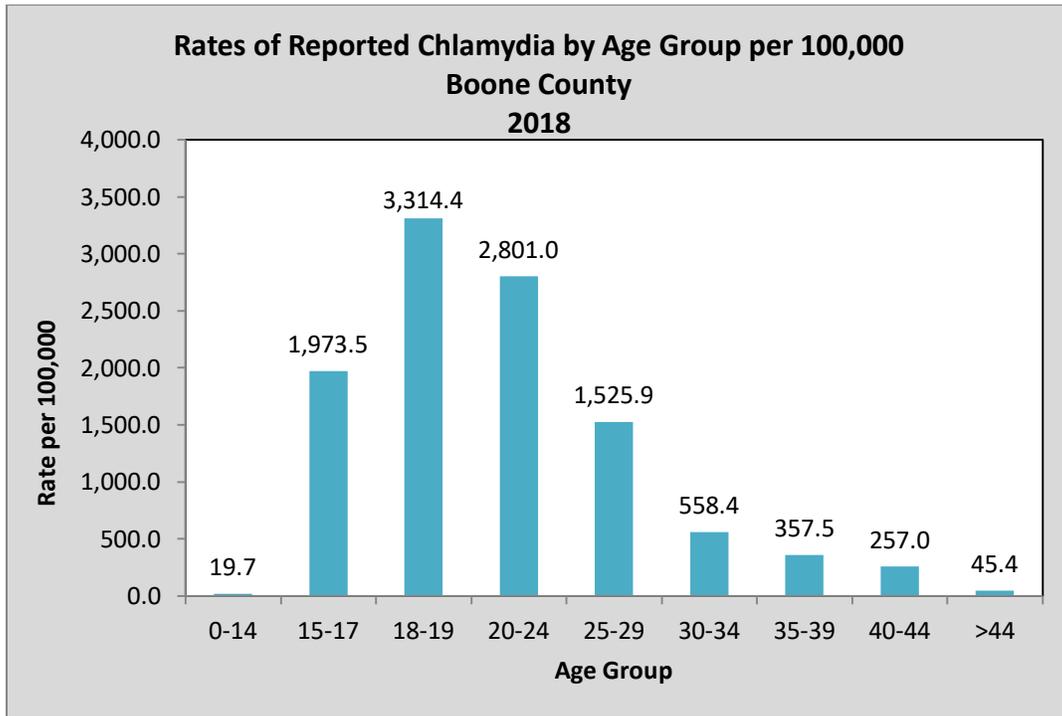


Figure 10: Rate of Reported Chlamydia by Race per 100,000, 2018

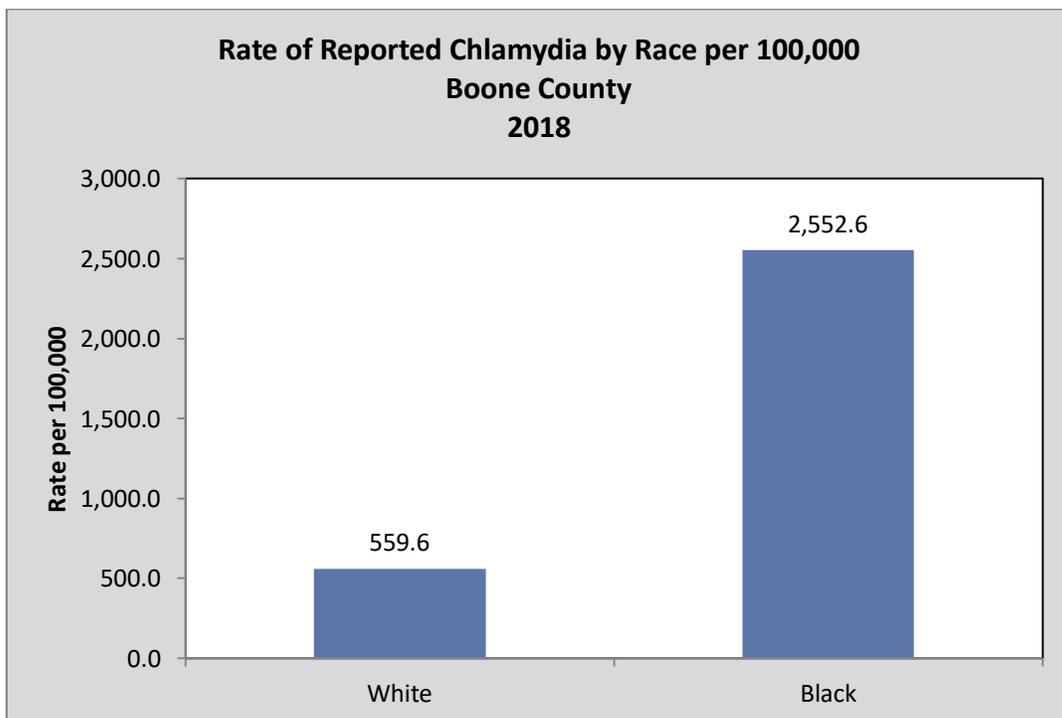


Figure 11: Rates of Reported Chlamydia Cases by Sex and Age Group per 100,000, 2018

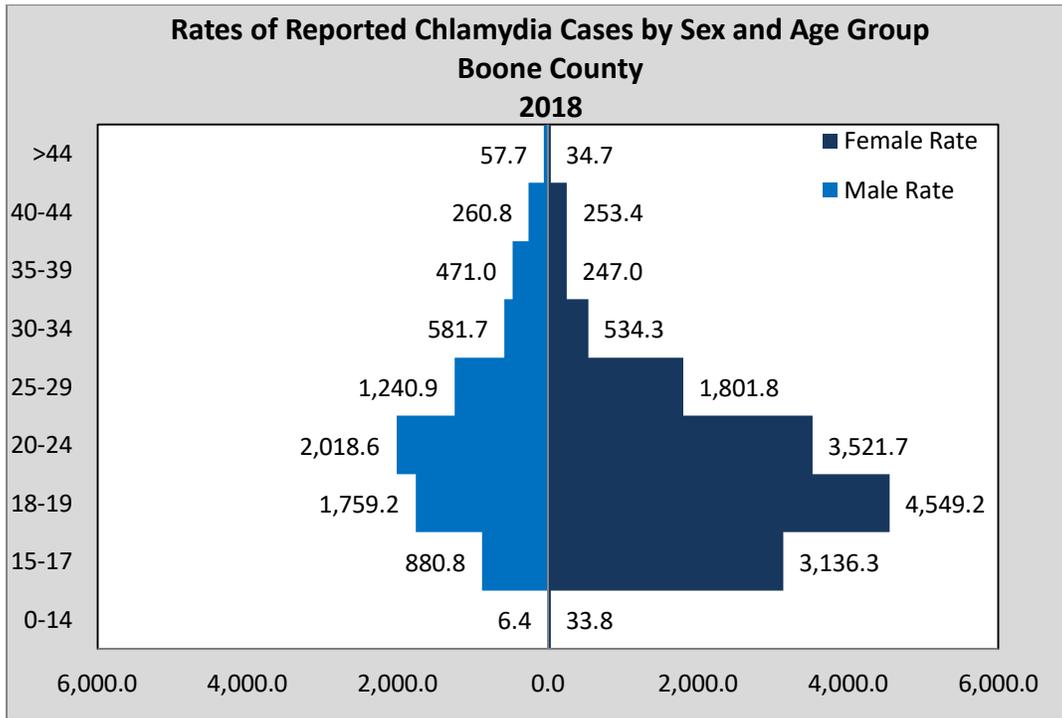


Figure 12: Rate of Reported Chlamydia Cases per 100,000 by Sex, 2018

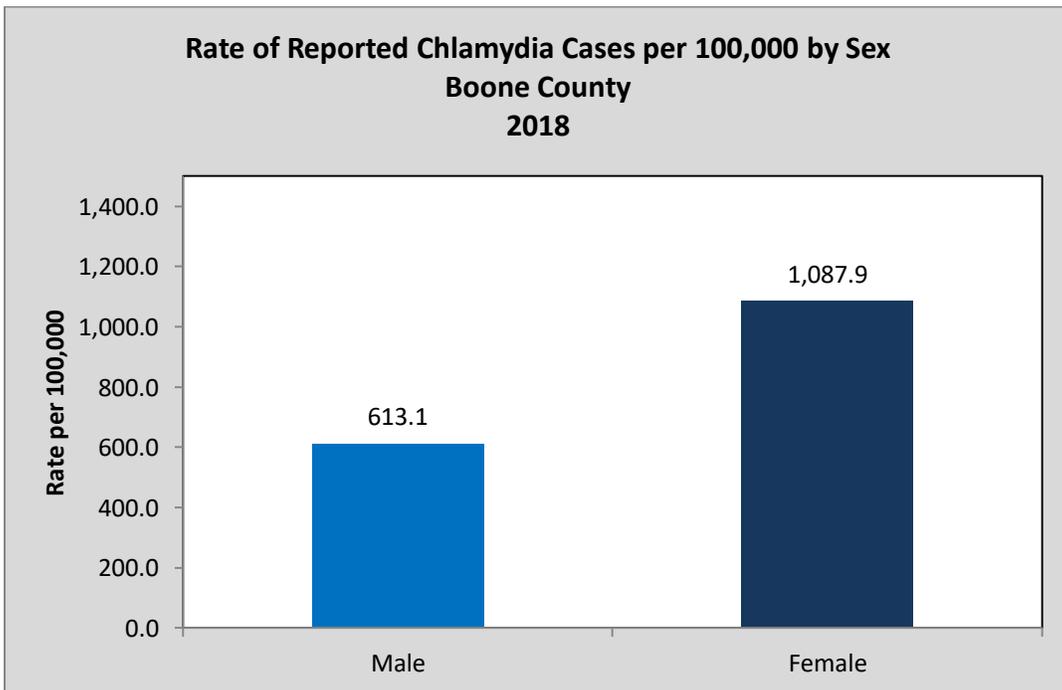
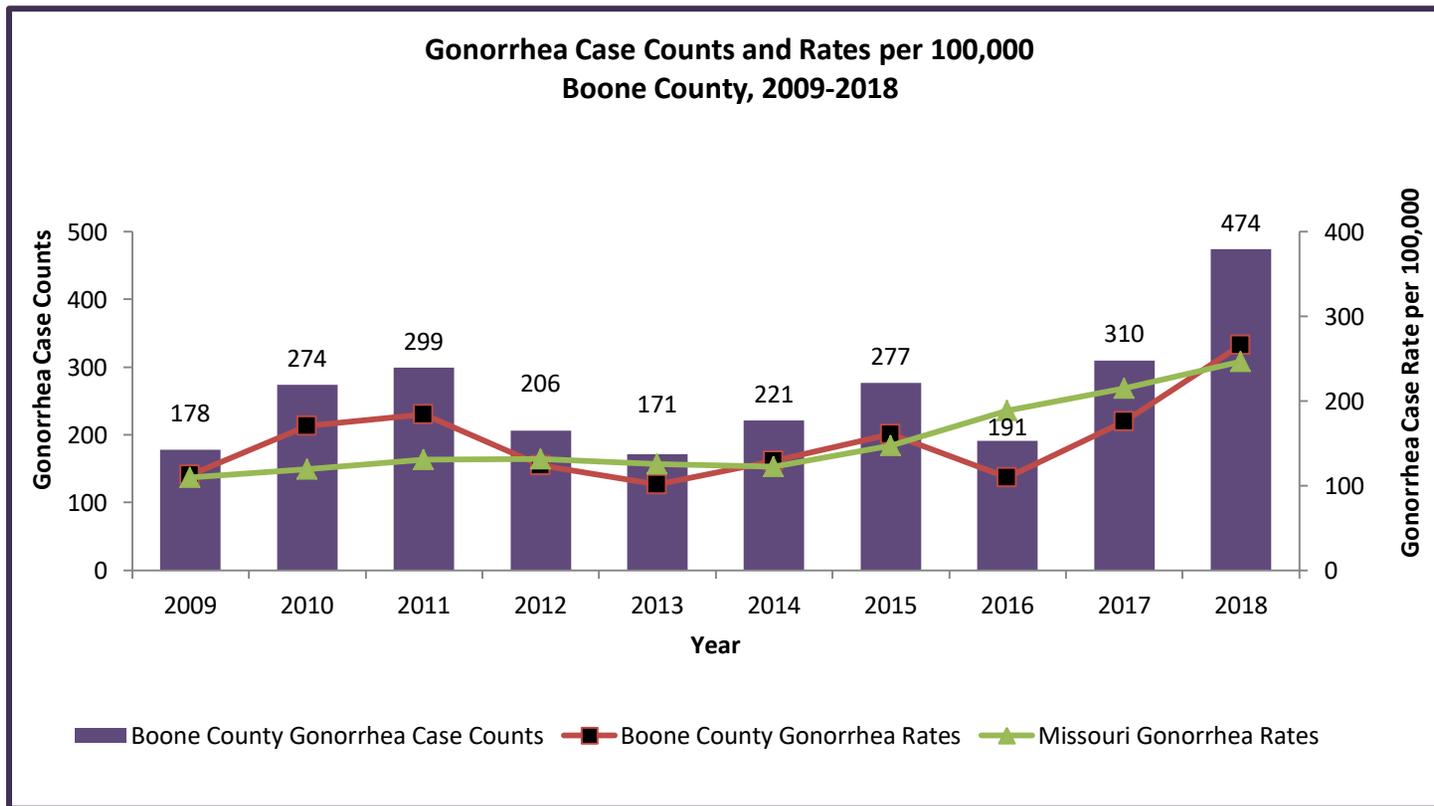


Figure 13: Gonorrhea Case Counts and Rates per 100,000, Boone County and Missouri, 2009-2018



Gonorrhea

Gonorrhea is a common STD that can infect both men and women, especially youth and young adults age 15-24. You can get gonorrhea by having vaginal, anal, or oral sex with someone who has gonorrhea. Untreated gonorrhea can lead to serious health problems in both sexes. Men may experience sterility, while women may experience pelvic inflammatory disease (PID), ectopic pregnancy, or infertility.

Boone County reported 474 cases of gonorrhea in 2018. This count is up compared to 2017 (310 reported cases) and is the highest number reported in the last 10 years. Boone County had the sixth-highest number of reported gonorrhea cases among all Missouri counties. The rate of gonorrhea per 100,000 in Boone County is slightly higher than the Missouri rate (265.9 compared to 246.8). Figure 13 on Page 10 shows gonorrhea case counts for Boone County, and compares Boone County and Missouri rates per 100,000 people between 2009 and 2018.

The 20-24 year age group had the highest gonorrhea case count (161 or 34% of all cases) (Figure 14), while the 18-19 year age group had the highest rate at 683.7/100,000 (Figure 15). There is an enormous disparity in gonorrhea rates among races. A black resident of Boone County is eight-times more likely to be diagnosed with gonorrhea than a white resident (Figure 16). The male case counts and rate of gonorrhea are slightly more than the female counts and rate (Figures 17-18). When breaking down the data further, 18-19 year old females had the highest rate of gonorrhea at 831.0/100,000. The highest rate among male age groups was 25-29 with 728.4/100,000.

Figure 14: Gonorrhea Case Counts by Age Group, 2018

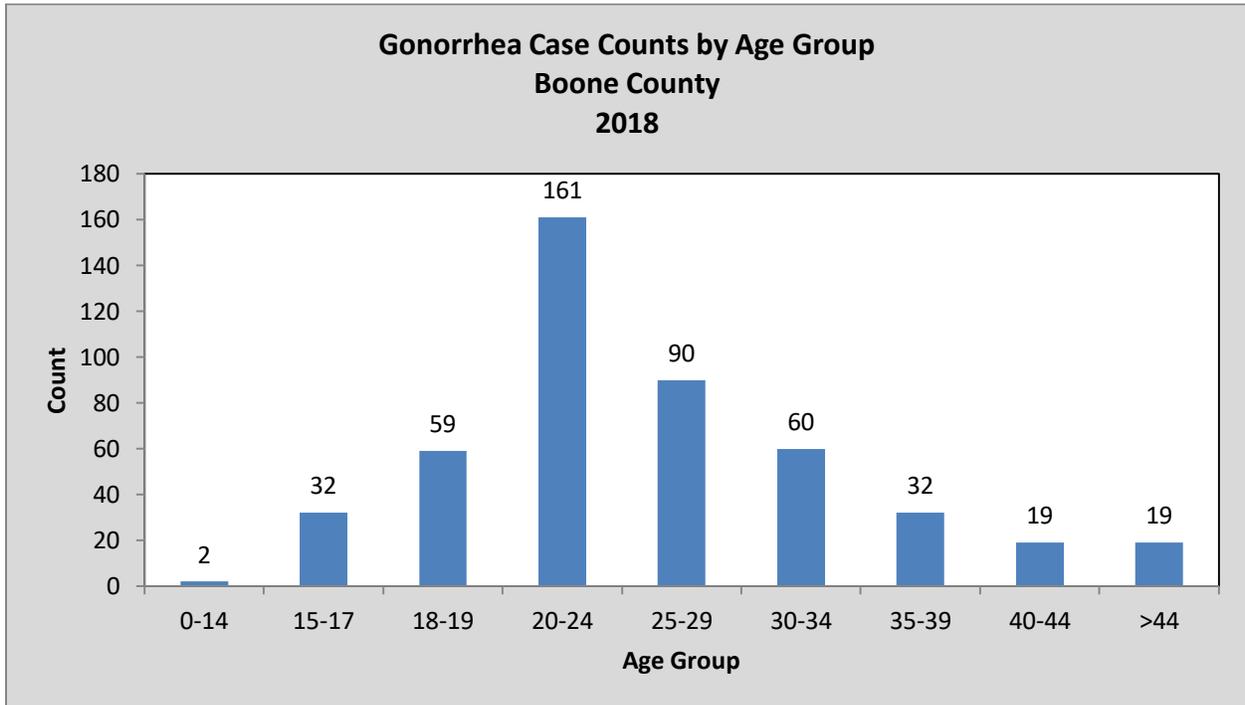


Figure 15: Gonorrhea Rates by Age Group per 100,000, 2018

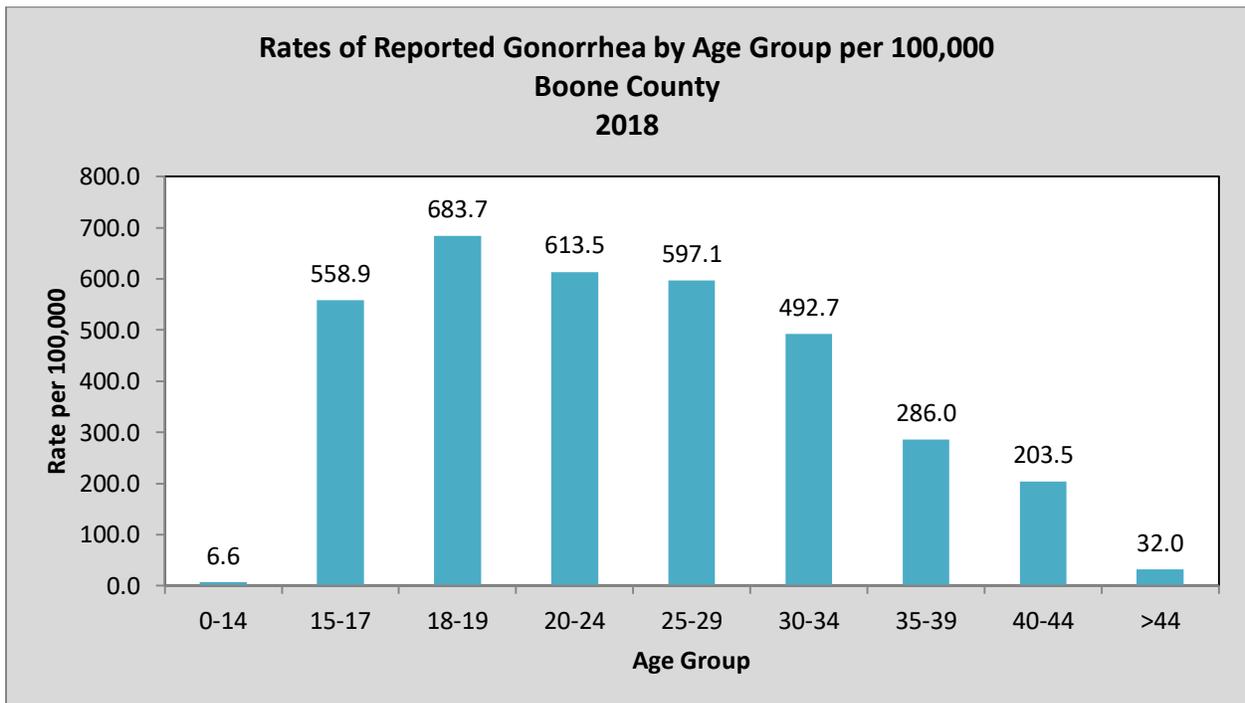


Figure 16: Rate of Reported Gonorrhea by Race, 2018

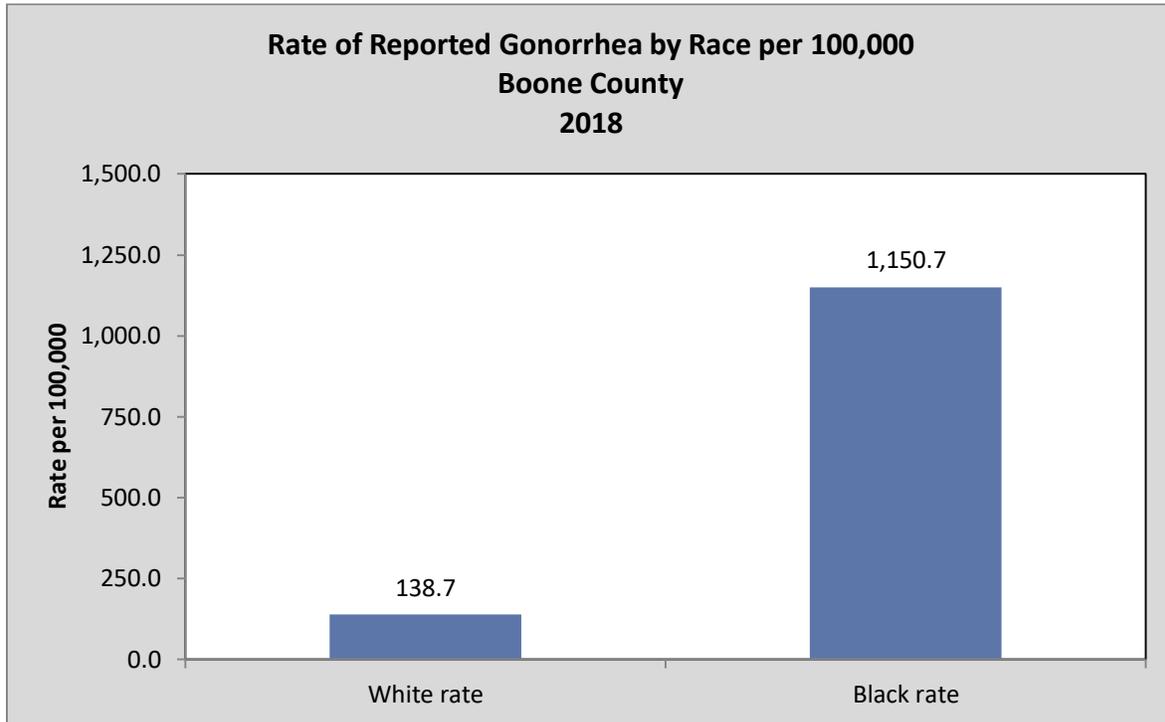


Figure 17: Rates of Reported Gonorrhea Cases by Sex and Age Group per 100,000, 2018

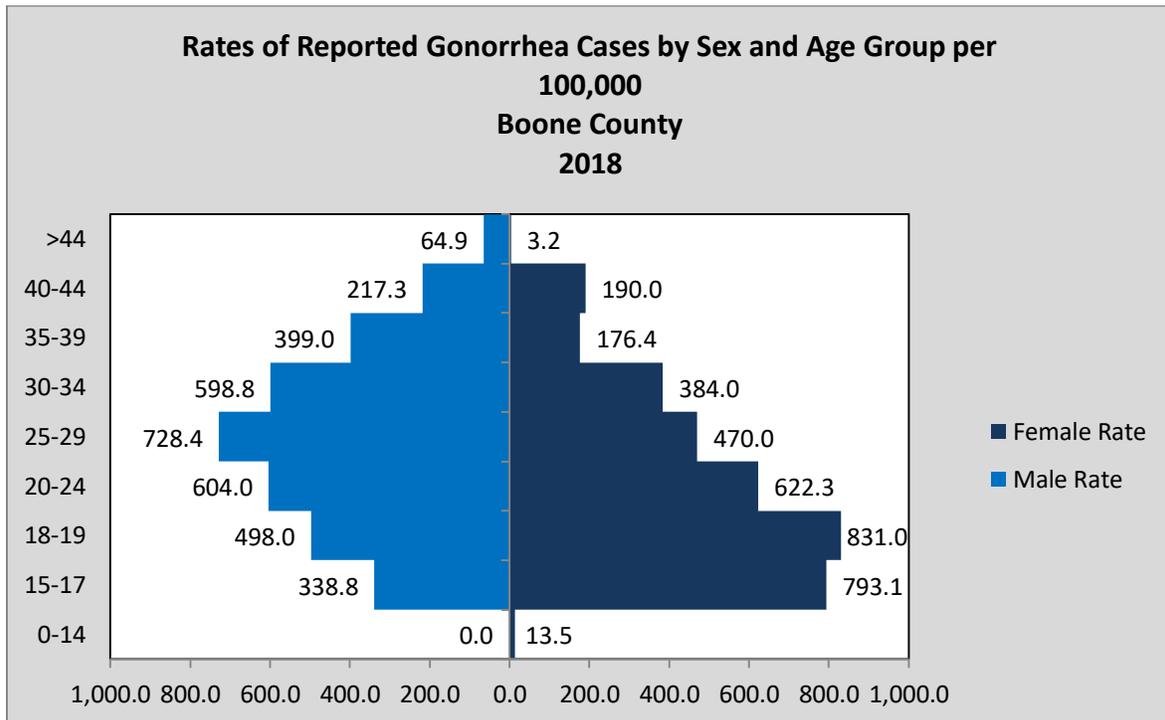


Figure 18: Rate of Reported Gonorrhea Cases by Sex per 100,000, 2018

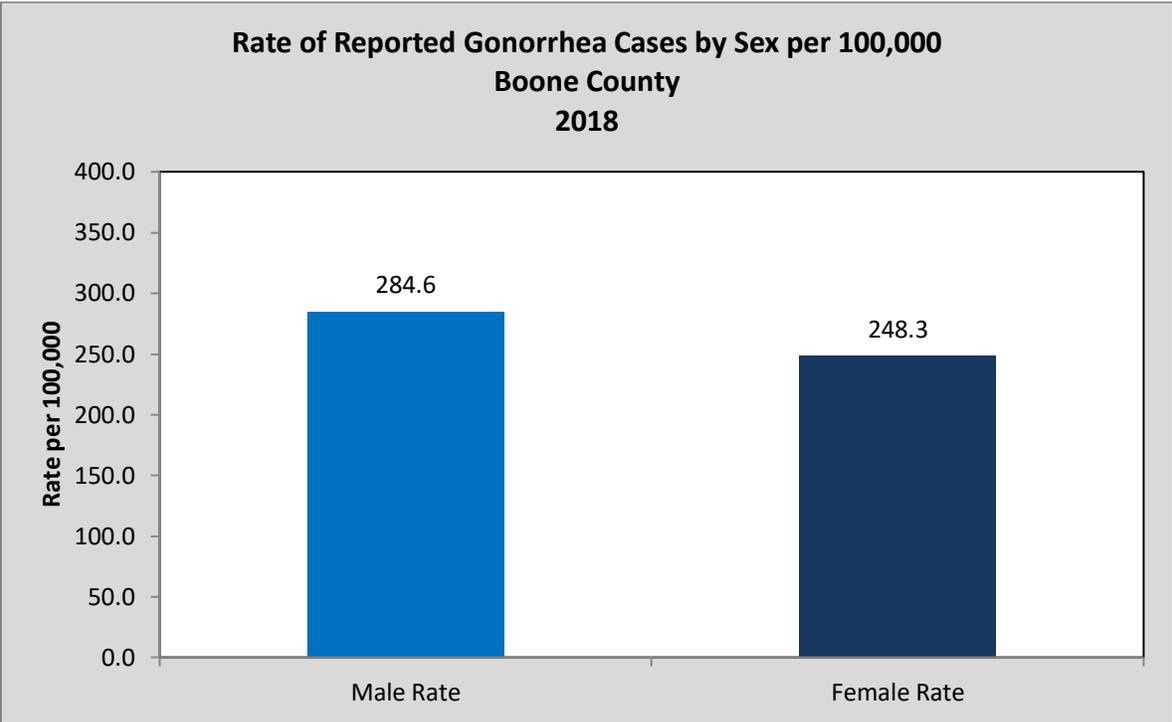
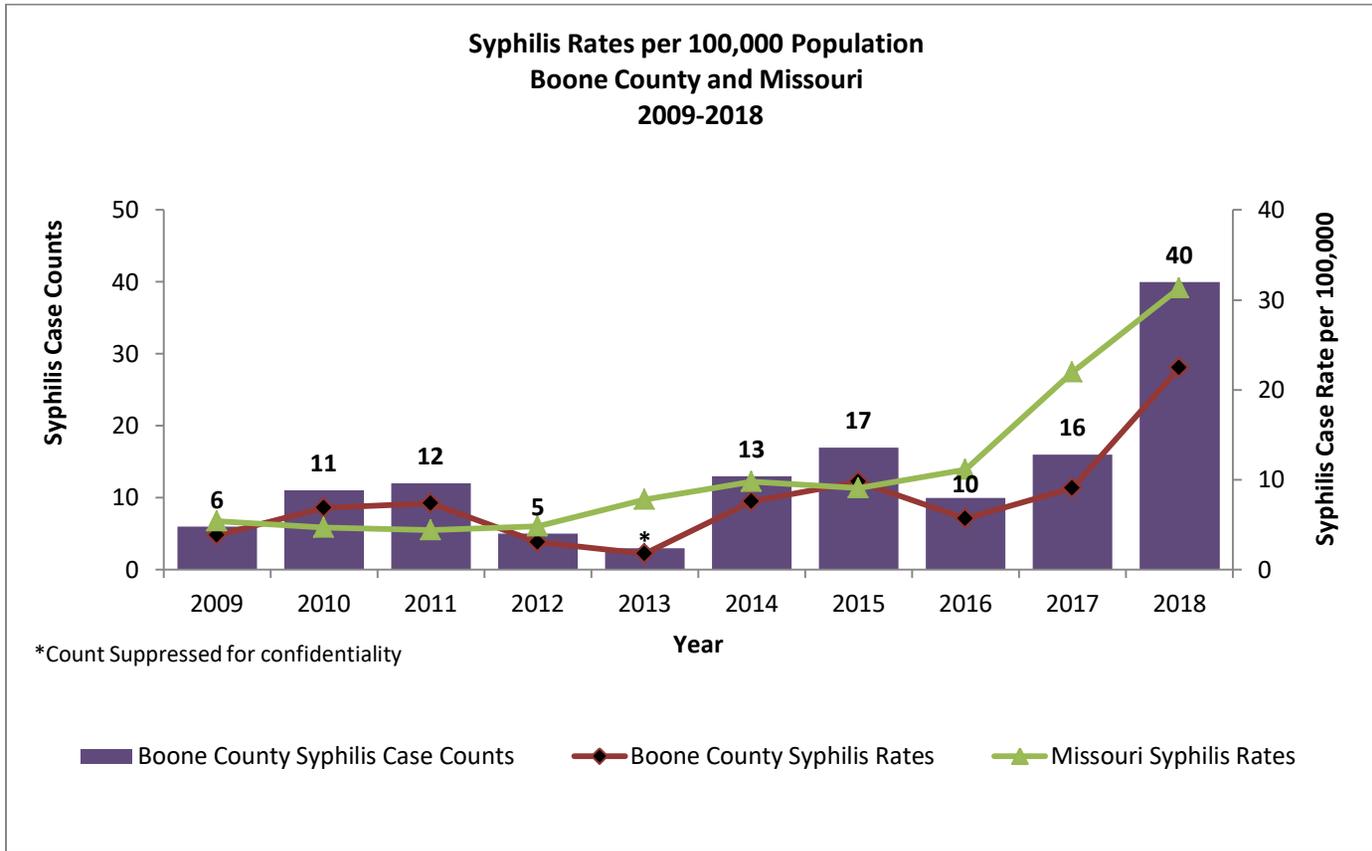


Figure 19: Syphilis Case Counts and Rates per 100,000, Boone County and Missouri 2009-2018



Syphilis

While syphilis is less common than chlamydia and gonorrhea, it can cause very serious complications. Syphilis transmits by direct contact with a syphilitic sore called a chancre. A chancre appears where syphilis has entered the body and represents the primary stage of the disease. Once the chancre heals, skin rashes typically mark the secondary stage of syphilis and may appear in one or more areas of the body. Other symptoms during this stage may include fatigue, hair loss, weight loss, muscle aches, and swollen lymph glands. These symptoms will go away without treatment, but the disease continues to progress and be transmissible. Latent stage syphilis continues to stay in the body with no outward signs or symptoms of the disease. Over time, syphilis can begin to damage internal organs, the brain, and nervous system. In this report, syphilis counts combine all stages.

Boone County reported 40 cases of syphilis in 2018, an increase from 16 cases reported in 2017. While there was an increase in syphilis rates per 100,000 in Boone County from 2017 to 2018 (9.1 to 22.4), the county is still below the Missouri rate of 31.3 per 100,000. Figure 19 on page 15 shows syphilis case counts for Boone County, and compares rates between Boone County and Missouri from 2009 to 2018.

Summary

Sexually transmitted diseases are the most reported communicable disease in Boone County, surpassed only by influenza in some years. The counts and rates of all reportable diseases in this report increased in 2018. Younger age groups (18-19 and 20-24-year olds), and black Boone County residents remain disproportionately affected by sexually transmitted diseases.

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